AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1-16. (Cancelled)

17. (Currently amended) A noninvasive continuous blood pressure measuring apparatus comprising:

oscillating means for generating an oscillation signal of which waveform is controlled;

an exciter responsive to said oscillation signal for inducing an exciter waveform in an artery and ~~a~~ blood in said artery of a living body;

a sensor arranged a predetermined interval apart from said exciter for receiving said induced exciter waveform transmitted through said artery from said living body and outputting a detection signal;

calibration hemadynamometer means for detecting absolute values of a maximum blood pressure and a minimum blood pressure of said living body;

waveform determining means responsive to said sensor for controlling said oscillation means to control said oscillation signal successively have different waveforms and determining one of said difference waveforms in accordance with said detection signal outputted at different waveforms and then, controlling said oscillating means to continuously generating said oscillation signal at said one of said different waveforms;

calculating means responsive to said frequency determining means for receiving absolute values from said calibration hemadynamometer means and successively calculating and outputting an instantaneous blood pressure value from a phase relation

between said oscillation signal and said detection signal at said one of said different waveforms and said absolute values; and

displaying means for displaying a continuous blood pressure variation from said instantaneous blood pressure successively outputted by said calculation means.

18. (Original) The noninvasive continuous blood pressure measuring apparatus as claimed in claim 17, wherein said waveform determining means detects attenuations in said detection signal at said different waveforms and determines said one of said difference waveforms in accordance with a minimum of said attenuations.

19. (Original) The noninvasive continuous blood pressure measuring apparatus as claimed in claim 17, wherein said waveform determining means detects dispersions in amplitudes of said detection signal at said different waveforms and determines said one of said difference waveforms in accordance with a minimum of said dispersions.

20. (Original) The noninvasive continuous blood pressure measuring apparatus as claimed in claim 17, wherein said waveform determining means detects phase shifts in said detection signal at said different waveforms and determines said one of said difference waveforms in accordance with a maximum of said phase shifts.

21. (Original) The noninvasive continuous blood pressure measuring apparatus as claimed in claim 17, wherein said waveform determining means detects attenuations in said detection signal at said different waveforms, detects dispersions in amplitudes of said detection signal at said different waveforms, and detects phase shifts in said detection signal at said different waveforms, obtains estimation values at said different waveforms through an estimating function for estimating said attenuations, said dispersions, and said phase shifts, and determines said one of said difference waveforms in accordance with the estimation values at said different waveforms.

22-26. (Cancelled)

27. (Currently amended) A method of noninvasively measuring continuous blood pressure comprising the steps of:

(a) generating an oscillation signal of which waveform is controlled;

(b) providing an exciter responsive to said oscillation signal inducing an exciter waveform in an artery and ~~a~~ blood in said artery of a living body;

(c) providing a sensor arranged a predetermined interval apart from said exciter for receiving said induced exciter waveform transmitted through said artery from said living body and outputting a detection signal;

(d) detecting absolute values of a maximum blood pressure and a minimum blood pressure of said living body;

(e) controlling said oscillation signal to successively control said frequency at different waveforms;

(f) determining one of said difference waveforms in accordance with said detection signal outputted at different waveforms;

(g) continuously generating said oscillation signal at said one of said different waveforms;

(h) receiving absolute values and successively calculating and outputting an instantaneous blood pressure value from a phase relation between said oscillation signal and said detection signal at said one of said different waveforms and said absolute values; and

(i) displaying a continuous blood pressure variation from said instantaneous blood pressure successively outputted.

28. (Original) The method as claimed in claim 27, further comprising the step of:

detecting attenuations in said detection signal at said different waveforms, wherein in said step (f), said one of said difference waveforms is determined in accordance with a minimum of said attenuations.

29. (Original) The method as claimed in claim 27, further comprising the step of:

detecting dispersions in amplitudes of said detection signal at said different waveforms, wherein in said step (f) said one of said difference waveforms is determined in accordance with a minimum of said dispersions.

30. (Original) The method as claimed in claim 27, further comprising the step of:

detecting phase shifts in said detection signal at different waveforms, wherein in said step (f) said one of said difference waveforms is determined in accordance with a maximum of said phase shifts.

31. (Original) The method as claimed in claim 27, further comprising the steps of:

detecting attenuations in said detection signal at said different waveforms;

detecting dispersions in amplitudes of said detection signal at said different waveforms;

detecting phase shifts in said detection signal at said different waveforms;

obtaining estimation values at said different waveforms through an estimating function for estimating said attenuations, said dispersions, and said phase shifts; and

determining said one of said difference waveforms in accordance with the estimation values at said different waveforms.